

**IN THE CLAIMS**

Please amend the claims to read as indicated below.

1. (currently amended) ~~An arrangement of components for use in a power line communication system,~~ A system comprising:

a modem for providing an output to a power line in a power line communication system;

a sensor for sensing a parameter of said output; and

a controller for adjusting a power of said output based on a value of said parameter.

2. (currently amended) The ~~arrangement~~ system of claim 1, wherein said controller maximizes said power while limiting said power to a predetermined level of electromagnetic radiation.

3. (currently amended) The ~~arrangement~~ system of claim 1, wherein said output includes a first frequency sub-band and a second frequency sub-band, and wherein said controller adjusts ~~a said power~~ to a first power for said first frequency sub-band and a second power for said second frequency sub-band.

4. (currently amended) The ~~arrangement~~ system of claim 1, wherein said modem provides said output by sequentially transmitting over a first frequency sub-band and a second frequency sub-band, and wherein said controller adjusts ~~a said power~~ to a first power for said first frequency sub-band and a second power for said second frequency sub-band.

5. (currently amended) The ~~arrangement~~ system of claim 1, wherein said parameter comprises an electromagnetic radiation.

6. (currently amended) The ~~arrangement~~ system of claim 1, wherein said parameter comprises a signal current in said power line.

7. (currently amended) The ~~arrangement~~ system of claim 1, wherein said parameter comprises a signal voltage on said power line.

8. (currently amended) The ~~arrangement~~ system of claim 1, wherein said parameter comprises ~~a magnitude of an output current in phase with an output voltage~~ a real component of said power.

9. (currently amended) The ~~arrangement~~ system of claim 8, wherein said sensor comprises a phase detector that receives an input indicative of said ~~output voltage and an input indicative of said output current~~ real component.

10. (currently amended) The ~~arrangement~~ system of claim 1,  
wherein said output produces an electromagnetic radiation intensity from said power line,  
wherein said parameter and said electromagnetic radiation form a ratio, and  
wherein said controller adjusts said power to compensate for variations in said ratio over a transmitter frequency band of said modem.

11. (currently amended) A method ~~employed in a power line communication system~~, comprising:  
providing an output from a modem to a power line in a power line communication system;  
sensing a parameter of said output; and  
adjusting a power of said output based on a value of said parameter.

12. (original) The method of claim 11, wherein said adjusting comprises maximizing said power while limiting said power to a predetermined level of electromagnetic radiation.

13. (currently amended) The method of claim 11,  
wherein said output includes a first frequency sub-band and a second frequency sub-band, and  
wherein said adjusting comprises adjusting said power to a first power for said first frequency sub-band and a second power for said second frequency sub-band.

14. (currently amended) The method of claim 11, wherein said modem provides said output by sequentially transmitting over a first frequency sub-band and a second frequency sub-band, and wherein said adjusting comprises adjusting ~~a said power~~ to a first power for said first frequency sub-band and a second power for said second frequency sub-band.

15. (original) The method of claim 11, wherein said parameter comprises an electromagnetic radiation.

16. (original) The method of claim 11, wherein said parameter comprises a signal current in said power line.

17. (original) The method of claim 11, wherein said parameter comprises a signal voltage on said power line.

18. (currently amended) The method of claim 11, wherein said parameter comprises ~~a magnitude of an output current in phase with an output voltage~~ a real component of said power.

19. (currently amended) The method of claim 18, wherein said sensing is performed by a phase detector that receives an input indicative of ~~said output voltage and an input indicative of said output current~~ said real component.

20. (original) The method of claim 11, wherein said output produces an electromagnetic radiation intensity from said power line, wherein said parameter and said electromagnetic radiation form a ratio, and wherein said adjusting comprises adjusting said power to compensate for variations in said ratio over a transmitter frequency band of said modem.